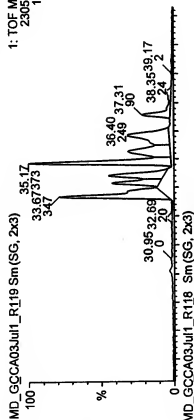


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LCMS ANALYSIS OF RECOMBINANT PEPTIDE VARIANTS

1: TOF MS ES+
 2305+1153
 1.98e3
 Area



1: TOF MS ES+
 2093+1047
 1.78e3
 Area

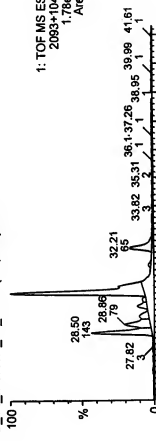


FIG. 1A

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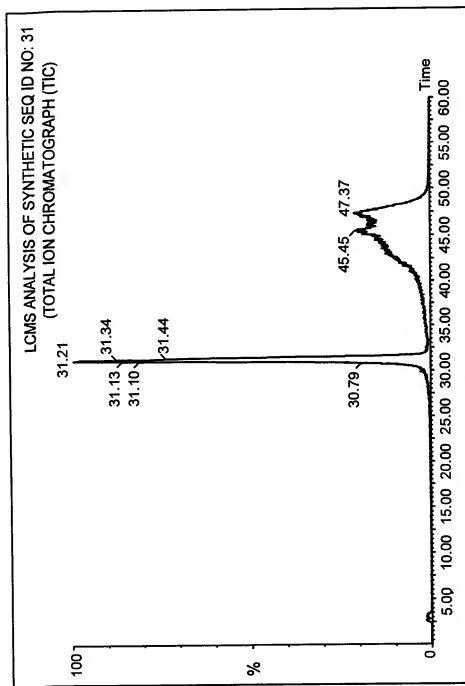


FIG. 1B

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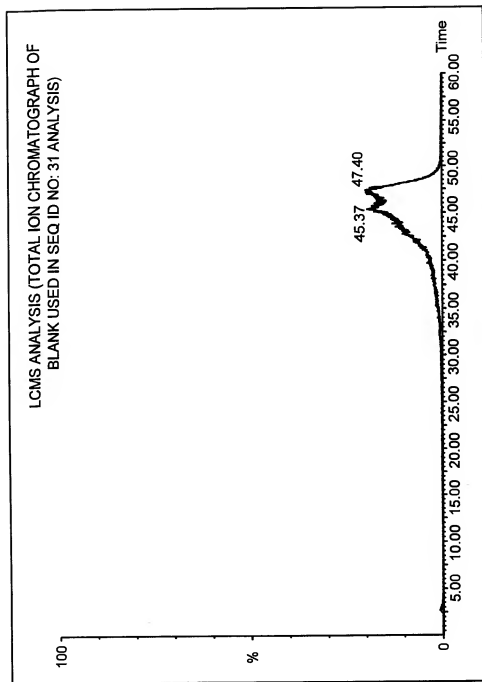


FIG.1C

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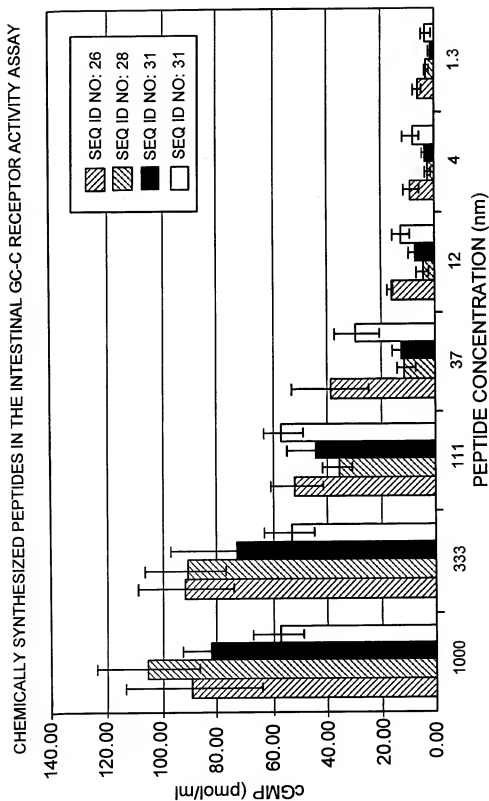


FIG. 2

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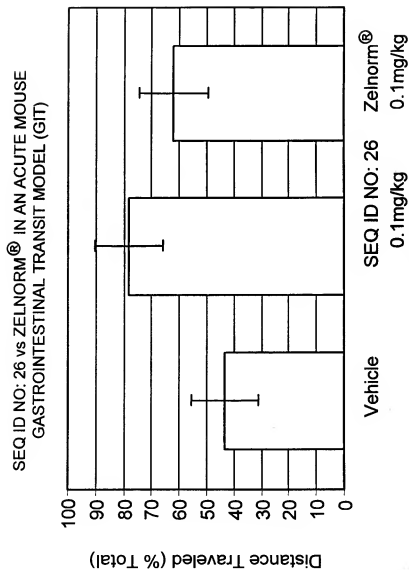


FIG. 3A

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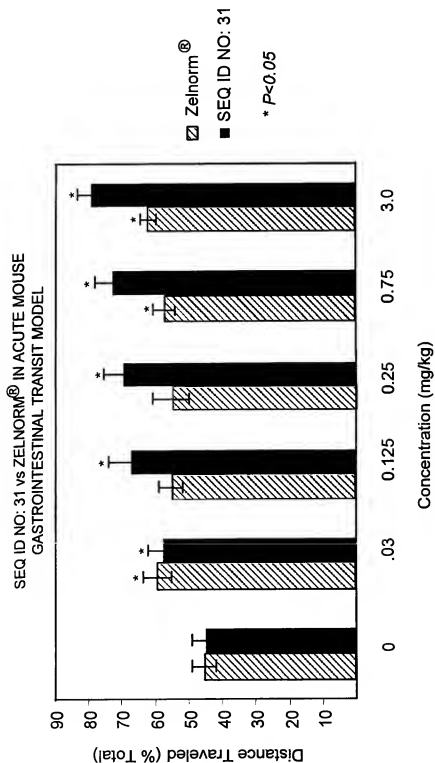


FIG. 3B

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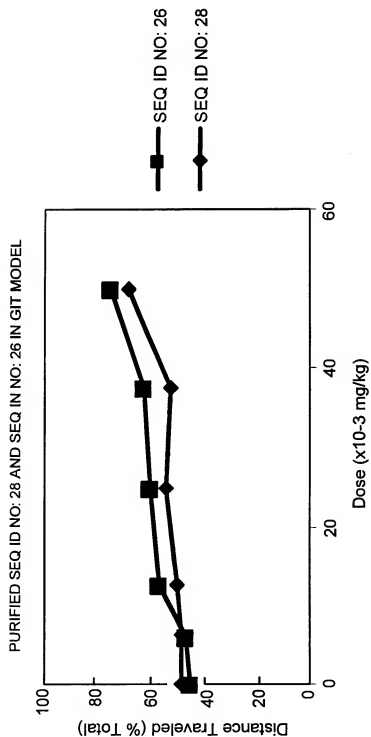


FIG. 4A

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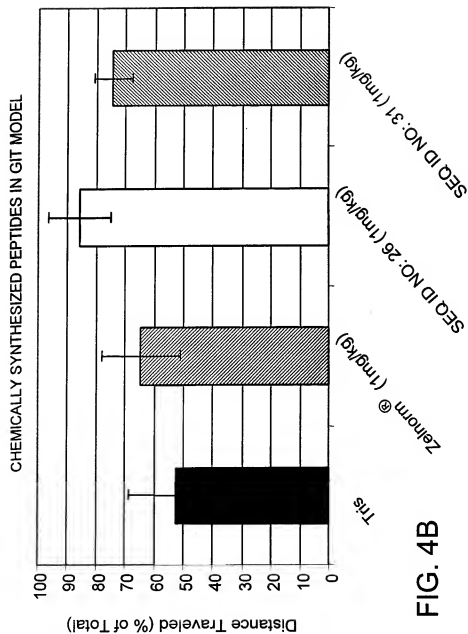
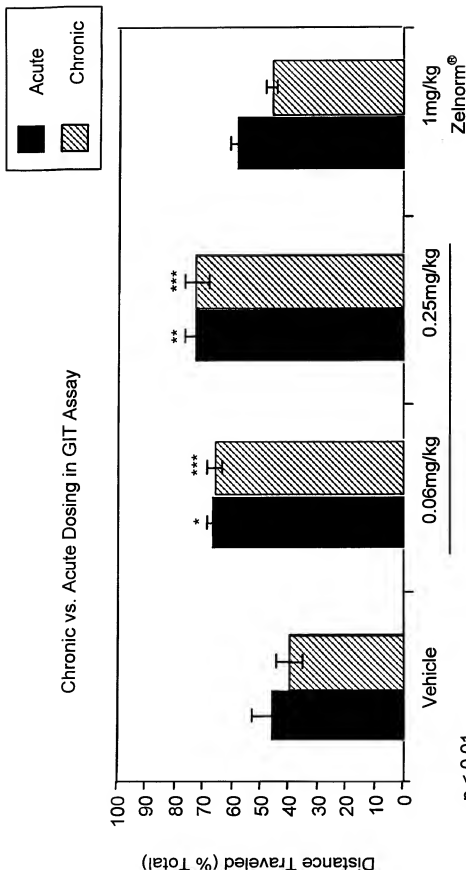


FIG. 4B

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* p < 0.01
 ** p < 0.005
 *** p < 0.0005

SEQ ID NO: 31

FIG. 4C

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SEQ ID NO: 26 vs ZELNORM® IN A MOUSE INTESTINAL SECRETION MODEL

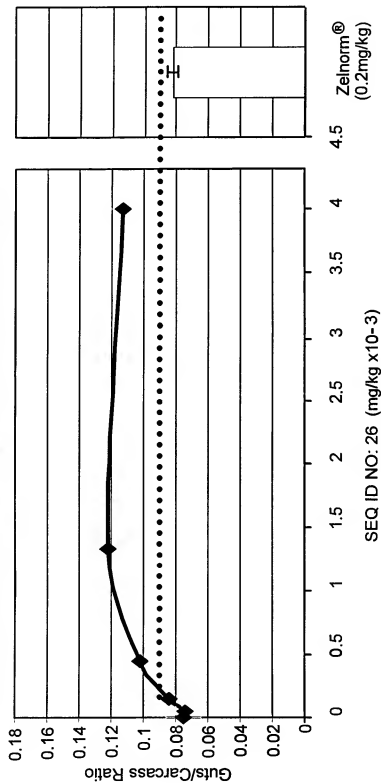


FIG. 5A

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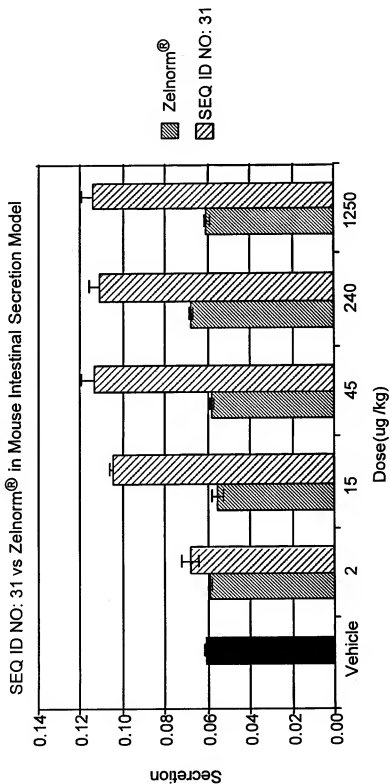


FIG. 5B

RECOMBINANTLY GENERATED SEQ ID NO: 28 AND SEQ ID NO: 26 IN MOUSE
 INTESTINAL SECRETION MODEL

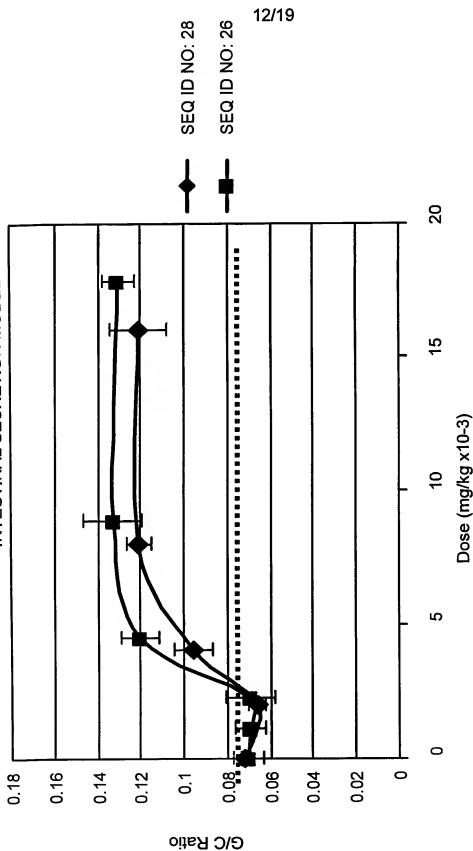


FIG. 6A

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CHEMICALLY SYNTHESIZED PEPTIDES IN MOUSE INTESTINAL SECRETION MODEL

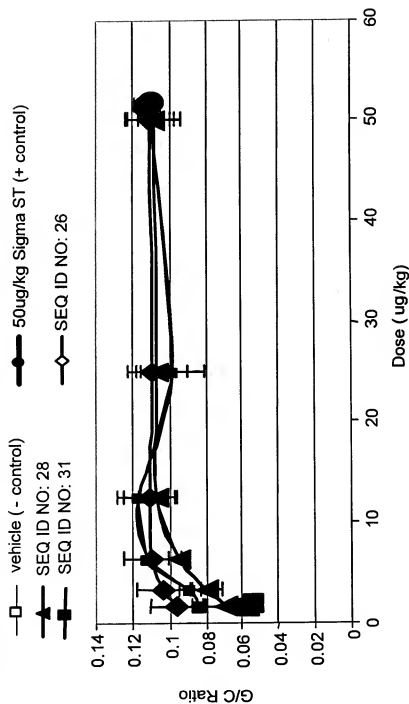


FIG. 6B

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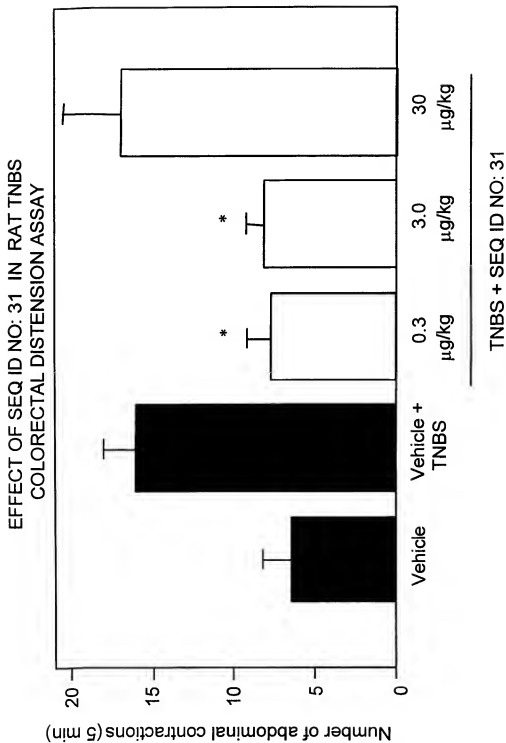


FIG. 7

* $p < 0.05$ as compared to "vehicle" value

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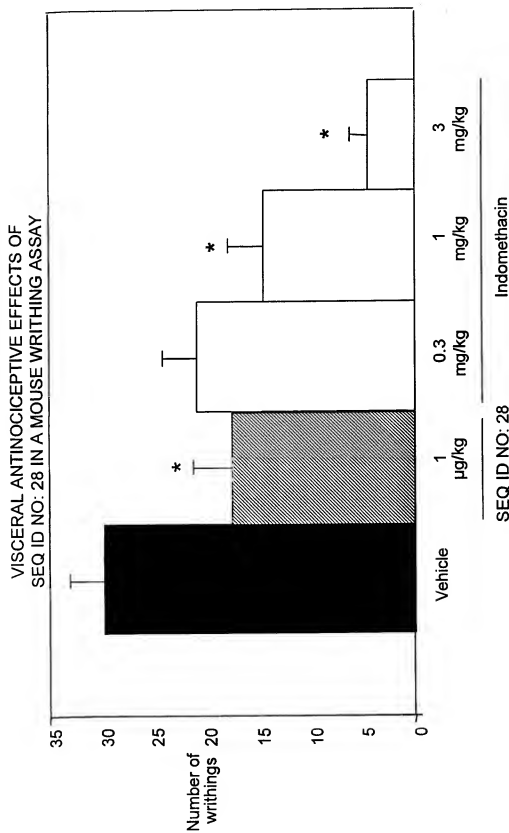


FIG. 8A

VISCERAL ANTINOCICEPTIVE EFFECTS OF
 SEQ ID NO: 31 IN A MOUSE WRITHING ASSAY

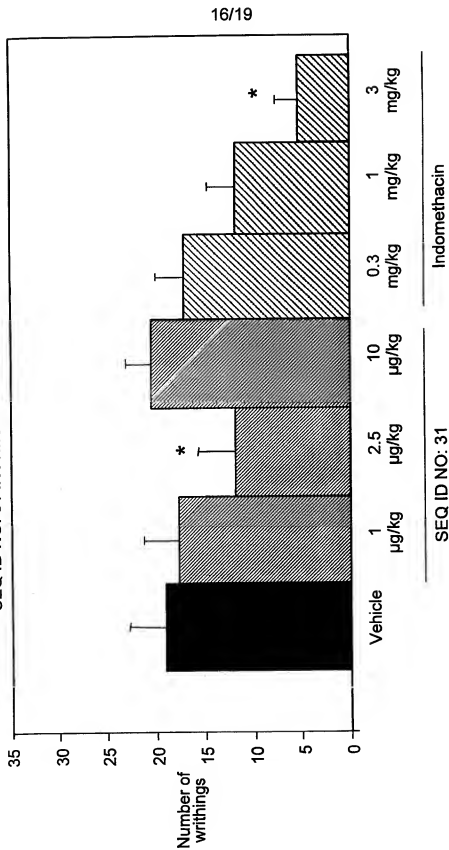


FIG. 8B

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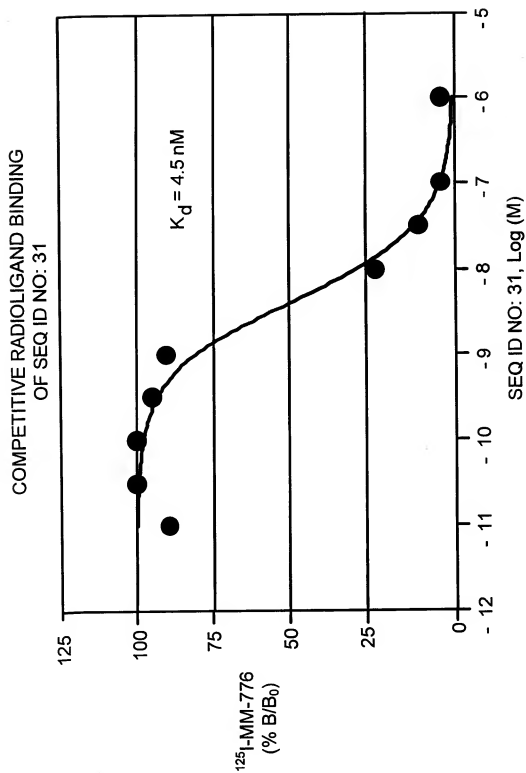
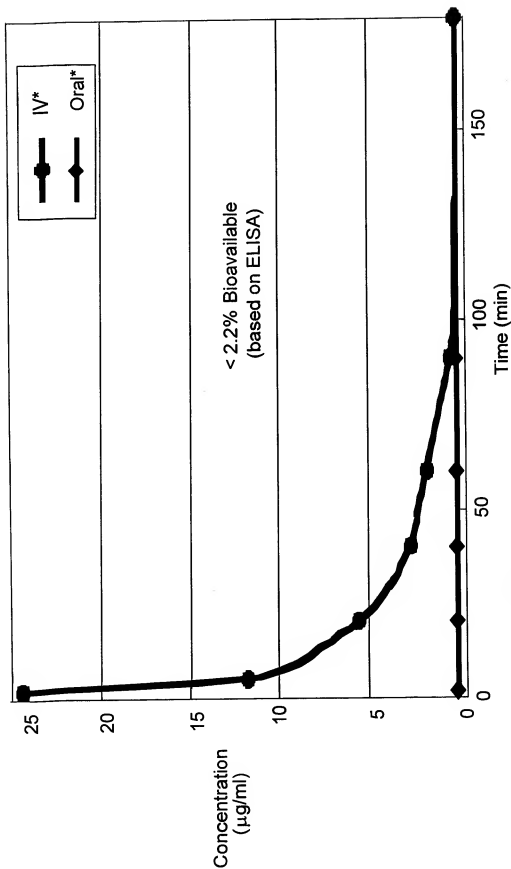


FIG. 9

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MINIMUM SYSTEMIC ABSORPTION OF SEQ ID NO: 31
 (BASED ON ELISA)

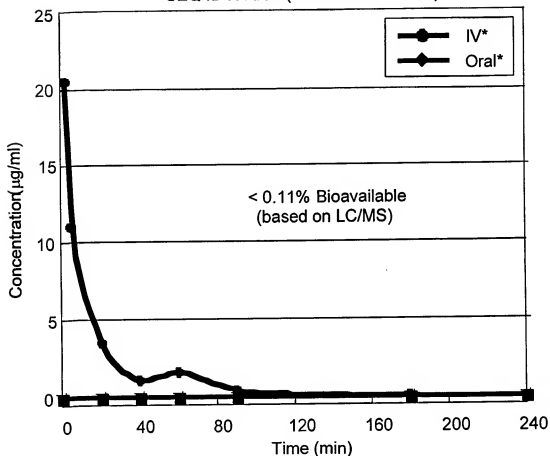


* Limit of detection 0.061 µg/ml
 Dosing at 10 mg/kg

FIG. 10A

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MINIMUM SYSTEMIC ABSORPTION OF
SEQ ID NO: 31 (BASED ON LC/MS)



* Limit of detection 0.0063 µg/ml (0.6 nM)

* Dosing at 10 mg/kg

FIG 10B